

Claims

1. Filter device for use of filter elements (28) which can be held in a filter housing (10) with a filter inlet (20) and a filter outlet (22) for the fluid to be filtered, flow through the filter elements (28) being possible in both directions for filtration or backflushing, and some filter elements (28) performing filtration in the filtration position and at least one other filter element (28) can be backflushed in a backflushing position to clean out its effective filter surface, characterized in that the individual filter elements (28) are moved in succession from their filtration position into the backflushing position and back into the filtration position by means of a pivoting device (30).
2. The filter device as claimed in claim 1, wherein the pivoting device (30) has a receiving element (32) for holding the filter elements (28), which receiving element is pivotably mounted within the filter housing (10) around a pivoting axis (36) by means of a drive (34).
3. The filter device as claimed in claim 2, wherein the receiving element (32) has two opposing end parts (38, 40) between which the individual filter elements (28) extend, and wherein at least the end part (40) which is facing the filter inlet (20) is pivotably guided along the interior of the filter housing (10) by way of a sealing means (42).
4. The filter device as claimed in claim 3, wherein the filter elements (28) are configured within the filter housing (10) coaxially to the pivoting axis (36) which is formed by a rod-like drive part (52) which detachably connects the two end parts (38, 40) to each other.
5. The filter device as claimed in claim 4, wherein the drive part (52) can be driven by a drive (34), especially in the form of a pneumatic motor, with alternating back and forth motion for its driven part (54) which can be converted by means of a free-wheeling device (56) into a

constant drive motion in one driving direction for the drive part (52) of the receiving element (32).

6. The filter device as claimed in claim 5, wherein the free-wheeling device (56) is formed from a free-wheeling sleeve which delivers the drive power of the drive (34) to the drive part (52) in one direction up to a definable torque and does not apply any driving torque in the other, opposite direction.
7. The filter device as claimed in one of claims 2 to 6, wherein the individual filter elements (28) are made conical and are configured diametrically opposite each other to the pivoting axis (36) in the filter housing (10) and wherein facing the drive (34) the filter elements (28) in this way have their widest front inlet opening (46).
8. The filter device as claimed in one of claims 2 to 7, wherein the filter outlet (22) is located on the edge side in that part (14) of the filter housing (10) which is facing the drive (34) and wherein the other part (12) of the housing (10) can be removed as a kind of cover and towards its free end has a cavity (60) with an axial extension which corresponds more or less to the overall length of the filter elements (28).
9. The filter device as claimed in one of claims 1 to 8, wherein the filter inlet (20) and the fluid outlet (26) for the backflushing quantity are configured in that part (14) of the filter housing (10) which extends between the filter outlet (22) and the drive (34).
10. The filter device as claimed in one of claims 1 to 9, wherein the respective filter element (28) is formed from a tubular wedge-wire screen filter element.